

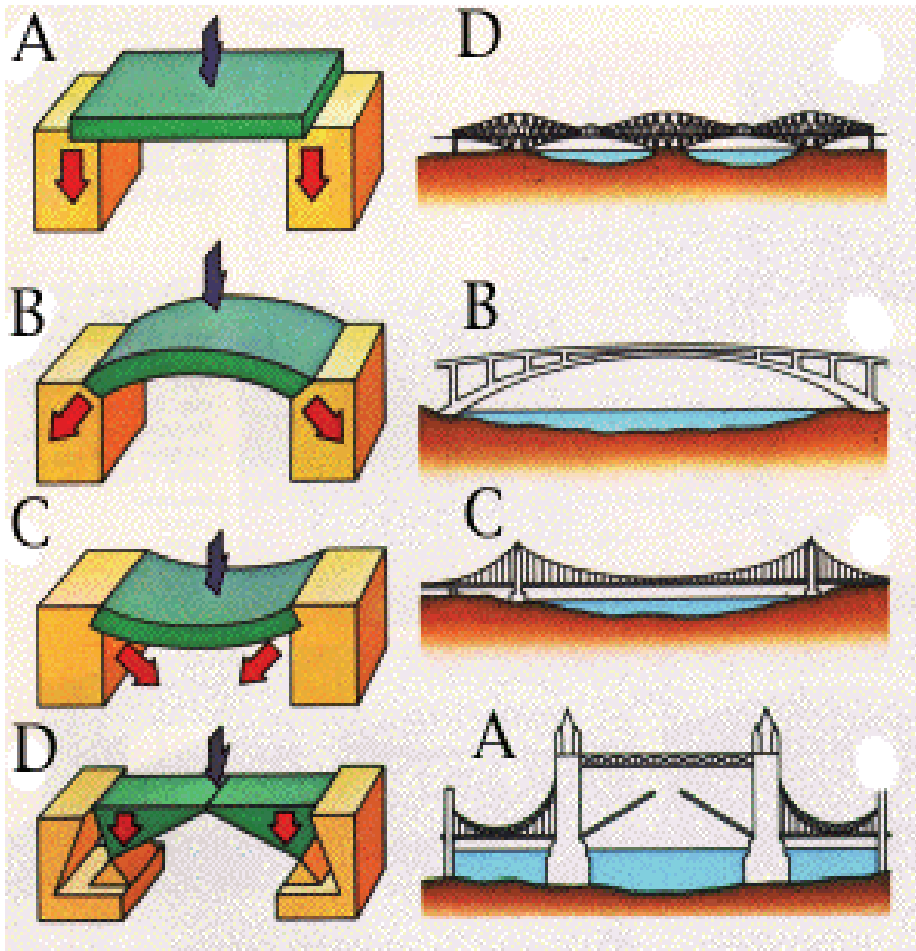
Bridge Activity -Lesson 2

The Bridge : Up, Down and All Around

Theme

Bridge Types / Bridge Forces

Every bridge needs to support its own weight and the weight of everything that travels along it.



Hell Gate Bridge-Bronx, New York

Vocabulary

gravity: a force that pulls all objects to the earth

force: any action that changes the shape or position of a structure

compression:- PUSH a force that squeezes a material together;
result material is shorter

tension:- PULL a force that stretches or pulls apart a material;
result material is longer

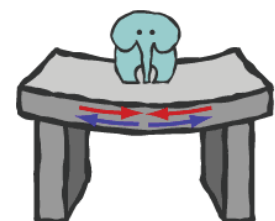
span: the distance between two structural elements

beam : a horizontal structural member that supports a load

column : a vertical structural member that supports a load

truss:a structural member that is a rigid frame; typically in the shape of a triangle

arch: a curved structure that spans an space open



Today on your way home
look for beams

Activity

Build a simple structure

Think about your material's strength and weakness

Where is the weak point?

Where is it strong?

Student Name